eDUniQue

Course: Scratch Programming - 12 Classes (Block Coding)

Learning coding is not only about understanding the programming language being used, but also developing important computational thinking skills, which are useful for problem-solving across many disciplinary areas. In this course, students will learn basic programming skills by creating interactive animations, which is a block-based visual programming language for anyone new to coding.

Why Teach Students Programming

- The benefits students can gain from learning computer programming.

- The worldwide need for more computer programmers.

- How "blocky" programs allow people to create programs without memorization.

- The types of projects can be created with Scratch.

- Programs similar to Scratch or derived from it.

The Basics of Scratch

- The history of Scratch.

- The difference between sprites and images.

- Using Scratch's built-in sprites.

- Creating your own sprites.

- How are "blocky" activities the same and/or different than coding?

- Scratch's block categories.

First Project Basics

- Adding movement to a sprite.

- Changing the colors of a sprite.

- Making a sprite appear to speak.

- Making a sprite appear to think.

Logic

- The Stop block.

- The Wait block.

- The Forever block.

- Repeating actions.

- The Broadcast block.

- Conditional statements.

- Nested control statements.

Adding Sound

- Linking sounds to a sprite.

- Playing Scratch's sounds.

- Recording and playing your sounds.

- Adding narration to your story.

Costumes and Background Changes

- Adding and changing costumes.

- Adding and changing backgrounds.

- Graphic special effects.

- Changing the size of a sprite.

- Working with multiple sprites.

Classroom Management and Scratch Accounts

- Student accounts.

- Sharing.

- Collaborating.

- Remixing.

- Backing up files and standalone player.

- Appropriate content.

- Resources for help.

Level : 3

Unit 15 : Introduction to Javascript

Unit 16 : Javascript Variables

Unit 17 : Javascript Operators

Unit 18 : Javascript Data Types

Unit 19 : Javascript Functions

Unit 20 : Javascript Events

Unit 21: Javascript Condition
Statement & Loops

C++ - 12 Classes (Coding)

Unit 1 : Introduction

Unit 2 : C++ Variables

Unit 3 : C++ User Input

Unit 4 : C++ Data Types

Unit 5 : C++ Operators

Unit 6 : C++ Strings

Unit 7 : C++ Conditions

Unit 8 : C++ Loops

Unit 9 : C++ Break/Continue

Unit 10 : C++ Arrays

Unit 11 : C++ Functions